

# EXHIBIT 5

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 1

UNITED STATES DISTRICT COURT

DISTRICT OF MINNESOTA

- - - - -

In Re:

Bair Hugger Forced Air Warming

Products Liability Litigation

This Document Relates To:

All Actions

MDL No. 15-2666 (JNE/FLM)

- - - - -

DEPOSITION OF ALBERT P. VAN DUREN

VOLUME I, PAGES 1 - 326

MARCH 7, 2017

(The following is the deposition of ALBERT P. VAN DUREN, taken pursuant to Notice of Taking Deposition pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure, via videotape, at the offices of Ciresi Conlin L.L.P., 225 South 6th Street, Suite 4600, Minneapolis, Minnesota, commencing at approximately 9:00 o'clock a.m., March 7, 2017.)

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 2

1 APPEARANCES:

2 On Behalf of the Plaintiffs:

3 Mark D. Bankston  
4 KASTER, LYNCH, FARRAR & BALL LLP  
5 1010 Lamar, Suite 1600  
6 Houston, Texas 77002

7 Genevieve M. Zimmerman  
8 MESHBESHER & SPENCE, LTD.  
9 1616 Park Avenue  
10 Minneapolis, Minnesota 55404

11 Gabriel Assaad  
12 KENNEDY HODGES  
13 4409 Montrose Boulevard, Suite 200  
14 Houston, Texas 77006

15 Michael A. Sacchet  
16 CIRESI CONLIN L.L.P.  
17 225 South 6th Street, Suite 4600  
18 Minneapolis, Minnesota 55402

19 On Behalf of Defendants:

20 Jerry W. Blackwell and Peter J. Goss  
21 BLACKWELL BURKE P.A.  
22 432 South Seventh Street, Suite 2500  
23 Minneapolis, Minnesota 55415

24 ALSO APPEARING:

25 Ryan M. Stirewalt, Videographer

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 4

1 P R O C E E D I N G S

2 (Witness sworn.)

3 ALBERT P. VAN DUREN

4 called as a witness, being first duly sworn,  
5 was examined and testified as follows:

6 ADVERSE EXAMINATION

7 BY MR. BANKSTON:

8 Q. Good morning, Mr. Van Duren.

9 A. Good morning.

10 Q. We're going to skip some of the formalities  
11 because I know you've been in that chair before, done  
12 some depositions, so we won't go over all of that  
13 today; I'm sure you're up to speed. But before we  
14 dive in, I did want to talk to you, make sure that you  
15 understood exactly what kind of deposition it is we're  
16 taking today, and -- and by that I mean that today you  
17 are appearing as a corporate representative for 3M.  
18 Do you feel like you have an understanding of what  
19 that is and what your purpose is here today?

20 A. I believe so.

21 Q. Okay. I'm going to be asking you questions,  
22 and in response to these questions today you're going  
23 to be giving testimony as though you're the voice of  
24 3M. Obviously, I can't put 3M in that chair, so  
25 somebody has to be chosen. I've been informed that

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 25

1 difference between the 500 and the OR, is the changes  
2 you talked about making it suitable for operating room  
3 use?

4 A. That was -- that was one among many changes  
5 that were made in that series of warming units to  
6 distinguish them from warming units that were  
7 specifically designed for use in the PACU or the ICU.

8 Q. Okay. What is the purpose of having a  
9 filter on the Bair Hugger?

10 A. Well it had several purposes: one purpose  
11 is to prevent the fouling of the internal components  
12 of the Bair Hugger; the other is to reduce the  
13 particulates that enter and exit the Bair Hugger.

14 Q. As -- in the field of --

15 When designing the Bair Hugger, why did the  
16 company care about particulates coming in and out of  
17 the Bair Hugger?

18 A. To keep the electronics and the sensors, the  
19 fans and the heat exchangers from gathering debris and  
20 fouling.

21 Q. Okay. When -- when -- I'm --

22 What I'm specifically referring to is that  
23 when I asked you for the purpose, you gave me two  
24 purposes, one being to foul -- not to foul up the  
25 motor and the other to reduce particulates in and out

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 49

1 A. Okay.

2 Q. The filter plays a safety function; right?

3 MR. BLACKWELL: Object as asked and  
4 answered, but you can go ahead.

5 A. Well again, I think that the filter serves  
6 two purposes: one is to prevent the fouling of the  
7 internal components of the warming unit; and the other  
8 is to minimize the amount of particulates that are  
9 exhausted into the -- into the blanket.

10 Q. And that's a safety function; correct?

11 A. We -- we could view that as a safety  
12 function.

13 Q. Okay. When the 505 was being validated in  
14 its design, can you tell me what safety validation was  
15 done with respect to the filter?

16 A. I do not believe that any particulate  
17 filtration efficiency studies were completed at that  
18 time.

19 Q. Okay.

20 A. And I should just point out, I guess  
21 quickly, that the -- the filter media in the 505 was  
22 again designated as 0.2-micron level. The filters  
23 that were in the previous warming units, the previous  
24 model 200s and the 250s and the 275s, were somewhere  
25 around two microns, so 10 times less efficient or

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 51

1 for the 505's filter?

2 MR. BLACKWELL: I object to the form of the  
3 question.

4 A. Well again, the -- to --

5 To my knowledge, and based on my review of  
6 the records that I have available to me, I didn't see  
7 any testing related to particulate efficiency of the  
8 filter media.

9 Q. Okay. And so I take it by that same token  
10 there was no biological testing of the filter.

11 MR. BLACKWELL: I object to the form of the  
12 question.

13 A. I'm unaware --

14 The company is unaware of any biological  
15 testing conducted on the -- during the design of the  
16 505.

17 Q. Okay. Let's talk a little bit, then, about  
18 the new media that comes into play, the M20 media that  
19 was introduced sometime in the 2000s period. Can you  
20 tell me: When that design change was made, what did  
21 the company do to ensure it was safe for the patients  
22 it would be used on?

23 A. Well the --

24 When the media was replaced, the design  
25 requirements specifications were again reviewed to

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 87

1           With respect to the safety validation for  
2 filter design, what requirements were -- there were  
3 and what was actually done on the model 750, that's  
4 not something you're prepared to talk about today.

5           MR. BLACKWELL: Object to the form of the  
6 question.

7           A. Well I mean I -- again, I can tell you that  
8 the -- there is a -- a control document, a design  
9 requirement specification, and it's controlled in the  
10 sense that it's like an ECO, that any requirement  
11 that's on that document is approved and signed off and  
12 it doesn't change without some sort of tracking  
13 occurring, that all of those specifications were met  
14 in -- in a -- or validated finally before the product  
15 was put on the market.

16          Q. Okay. But in terms of what was done  
17 pursuant to those specifications to validate the  
18 safety of this product with respect to airborne  
19 contamination, you don't know that.

20          A. I don't know that a specific requirement for  
21 airborne contamination exists on that document.

22          Q. Okay. Certainly, before the development of  
23 the model 750, the company was aware of the potential  
24 for airborne contamination and the necessity to take  
25 steps to mitigate that.



CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 88

1 MR. BLACKWELL: I object to the form of the  
2 question.

3 A. We were aware that customers had concerns or  
4 perceptions about the level of particulates that might  
5 be ejected from a -- a forced-air warming system.

6 Q. Well in fact if we --

7 When we looked at Exhibit 47 today in front  
8 of you, in talking about the safety concerns that were  
9 addressed in the 510(k), one of those was airborne  
10 contamination; correct?

11 A. Yes.

12 Q. In other words, when the company was  
13 designing the 505 and making filter decisions, it  
14 understood that one risk that needed to be mitigated  
15 was the potential for airborne contamination.

16 A. Yes.

17 Q. So the same can be said true of the model  
18 750. During that time of development, the company  
19 also understood that the product needed to take into  
20 consideration the potential for airborne contamination  
21 and take reasonable steps to mitigate that.

22 A. And it -- yes. And it did by including a  
23 filter --

24 Q. Okay.

25 A. -- as one component of that system.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 89

1 Q. Okay. So as we saw, there was a certain  
2 kind of filter on the model 505, and we talked about  
3 how that was validated and all of those sorts of  
4 things, so I'm --

5 With respect to the model 750 and its  
6 filter, can you tell me specifically what was done to  
7 ensure that that product was safe in terms of airborne  
8 contamination?

9 MR. BLACKWELL: I object to the form of the  
10 question.

11 A. You know, I mean I think I've answered it  
12 the best I can. The -- the design requirements that  
13 dictate how the product is designed are tested to  
14 validate that the -- that those -- that the product  
15 meets those requirements specifications, so that was  
16 the -- in -- in total the amount of testing that was  
17 completed to validate the model 750. Specifically, I  
18 don't -- I do not think or do not recall that --  
19 whether any safety testing, as you call it, was  
20 conducted.

21 Q. And that would be because, at this point  
22 anyway -- and I'm talking about the two thousand --  
23 1999-to-2002 timeframe -- the company did not have an  
24 appreciation of the importance of particulate matter  
25 that could be ejected into the operating room from the

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 90

1 Bair Hugger.

2 MR. BLACKWELL: I object to the form of the  
3 question.

4 A. Well I -- I --

5 The company certainly had an indication that  
6 it was important to the customers regarding the level  
7 of particulate loading that might occur from a  
8 forced-air warming unit.

9 Q. Okay. Now part of the reason that dictated  
10 a choice of filter in the model 750 was an airflow  
11 concern; correct?

12 A. Part of what, yes.

13 Q. In fact, it was a goal of the project of the  
14 750 to create a device which delivered more air than  
15 the previous device.

16 A. Yes.

17 Q. Okay. So the air-output specifications of  
18 the unit changed and that in turn dictated some of the  
19 choice for the filter.

20 A. One -- one of the many design considerations  
21 that dictated that, yes.

22 Q. Okay. Before the 750 was ever released and  
23 sold and used on a patient, what was done to ensure  
24 that that change in air out -- output had no adverse  
25 effect on airborne contamination issues?

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 213

1 inconclusive as to whether or not the Bair Hugger unit  
2 750 disrupts the sterile surgical field.

3 A. Well the 750 wasn't used in that study.

4 Q. Neither was the 505; correct?

5 A. No, I think it was the 505 in that study.

6 Q. 505E.

7 A. Well 505E, yes.

8 Q. Which has lower airflow than the 505.

9 A. Yes.

10 Q. Okay. And the 505E is not used in the  
11 United States.

12 A. No, it is not.

13 Q. Okay. With respect to surgical site --  
14 disruption of the -- of the sterile field, you do not  
15 mention any CFD analysis. Did 3M do a CFD analysis,  
16 third party?

17 A. Yes.

18 Q. Okay. Would that fall under this category  
19 as well?

20 A. Well it's -- it's not a test, it's a -- it's  
21 a computational analysis.

22 Q. Okay. Well I take testing and analysis and  
23 calculations as all being tests in some way or other,  
24 whether a physical test or a calculation test. Is  
25 that fair? Is that the definition of testing?

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 217

1 Q. What are the flaws of the Huang study when  
2 you analyzed it?

3 A. I don't have my data here in front of me,  
4 but I'm sure that I've written extensively on that  
5 study.

6 Q. Do you agree the sample size was small?

7 A. Yes, I believe the sample size was pretty  
8 small in the Huang study.

9 Q. It was only 16 people; correct?

10 A. Yeah, I think so.

11 Q. It used the Bair Hugger 505; correct?

12 A. I believe that's the unit that was used.

13 Q. And that has less airflow than the 750;  
14 correct?

15 A. Yes.

16 Q. And Huang even acknowledges, and I think you  
17 acknowledged it in the Moretti study, that there's a  
18 higher count of particles or bacteria in the beginning  
19 of surgery in room air because of unrestricted  
20 movement of personnel in and out of an operating room.

21 A. Yes.

22 Q. So taking a sample size of CFUs or particles  
23 when you first lay down the patient is really not a  
24 good indicator of particles or CFUs with respect to  
25 what's really going on in an operating room during

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 258

1 coming from. Okay? Because particles are all over  
2 the operating room and underneath the operating room  
3 table and everywhere. Do you agree?

4 A. Yes.

5 Q. Okay. Based on the data that we have today,  
6 including the study funded by 3M as well as other  
7 studies, every single study indicates that the Bair  
8 Hugger increases the particle count over the sterile  
9 field; correct?

10 A. In absolute numbers, yes.

11 Q. Yes. Okay. And you have no internal  
12 studies to refute that; correct?

13 A. No, we don't.

14 Q. What's defendants' knowledge and analysis of  
15 third-party testing regarding whether or not the Bair  
16 Hugger causes surgical-site infection?

17 A. Well again, the analysis that I showed you  
18 that was done with the CDC data, for example. And the  
19 secular trend of deep joint infection over the last  
20 decade or so has generally declined in hip and knee  
21 implant surgery, so at a -- at a macro level there  
22 doesn't appear to be an increase in the number of  
23 these infections despite the fact that patients are  
24 generally older and sicker and there are more of them  
25 now than there were a decade ago.

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 283

1 analyzed or has knowledge of with respect to  
2 disruption of the sterile field. Is that a study that  
3 3M has -- has knowledge and analyzed?

4 A. Yes.

5 Q. It is a study funded by Augustine Medical;  
6 correct?

7 A. Yes.

8 Q. And that study is flawed as well; isn't it?

9 MR. BLACKWELL: Object to the form of the  
10 question.

11 A. I mean I -- in --

12 In what way?

13 Q. Well is it flawed?

14 A. Perhaps it could be flawed.

15 Q. Well --

16 A. It may have limitations.

17 Q. You -- you -- you -- you -- you stated that

18 all -- all studies are -- have some sort of flaws.

19 Are you saying this study does not have any flaws?

20 A. All -- all -- all clinical trials have  
21 limitations in some way. There is no perfectly  
22 conducted trial, which is why we have to do many of  
23 them.

24 Q. Well Zink wasn't a clinical trial; was it?

25 A. It was a --

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 291

1 A. Limitations.

2 Q. Limitations, flaws.

3 Based on this analysis and knowledge, has 3M  
4 publicized these limitations of these studies of Zink  
5 and Kurz and Huang and Avidan to the public, to the  
6 consumers?

7 MR. BLACKWELL: Object to the question as  
8 beyond the scope of the 30(b)(6) designation.

9 A. No, we have not.

10 Q. Switching subjects, you would agree that the  
11 studies of third-party testing indicate that the Bair  
12 Hugger unit harbors bacteria inside the device.

13 A. Well I would -- I would agree that bacteria  
14 can be recovered from the interior of the device.

15 Q. Because the device is not sterile.

16 A. It's not sterile..

17 Q. And in fact, you're not -- 3M is not  
18 disputing that the Bair Hugger blower and hose can  
19 harbor bacteria inside the device.

20 A. We are not disputing that.

21 Q. Okay.

22 A. It's not sterile.

23 Q. Okay.

24 MR. ASSAAD: Take a five-minute break.

25 THE REPORTER: Off the record, please.



CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 300

1 A. That's one of its purposes.

2 Q. All right. And you had some questions posed  
3 to you earlier today, or 3M did, that -- that shows --  
4 pardon me -- with respect to knowledge about studies  
5 and increased particle counts. Do you recall that  
6 line of questioning?

7 A. Yes.

8 Q. And you testified on behalf of 3M that the  
9 company is aware that -- that studies show increased  
10 particle count when the Bair Hugger machine is turned  
11 to warm setting in operating rooms; correct?

12 MR. BLACKWELL: Object to the form of the  
13 question.

14 A. Trivial increases, yes.

15 Q. They --

16 But you are aware that the studies do show  
17 increased rate of particle count in operating rooms  
18 with the Bair Hugger set to warm; correct?

19 MR. BLACKWELL: Same objection.

20 A. Yes.

21 Q. And you'd agree that increased particle  
22 count is something that 3M has never warned orthopedic  
23 surgeons about; correct?

24 A. Not to my knowledge.

25 Q. So my question is -- is accurate?

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 313

1 asked him about changes that were made to the  
2 predicate device, which was the 200, which is what  
3 this is a picture of.

4 MR. BLACKWELL: So Exhibit 351 relates to  
5 the predicate device, the 200.

6 MS. ZIMMERMAN: Exactly. And the question  
7 ultimately is: Why was the warning removed when we  
8 got to the 500 series?

9 A. Well there's another difference, too, and  
10 that is that the 200 was not intended to be used in  
11 the operating room.

12 Q. Right. And -- and I'm aware of that, Mr.  
13 Van Duren. My question really is -- has to do with  
14 the knowledge that was available to the company  
15 broadly at that time.

16 There -- there was some knowledge, based on  
17 the fact that there is a warning of airborne  
18 contamination, that contamination could be airborne;  
19 correct?

20 A. Yes.

21 Q. Okay. And -- and despite that fact, there  
22 is no warning on the 500 series of the Bair Hugger  
23 device about risk of airborne contamination; correct?

24 A. That's correct.

25 Q. And that's despite the fact that the medical

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 314

1 care professionals rely on the company to warn about  
2 risks; correct?

3 MR. BLACKWELL: I object to the form of the  
4 question.

5 A. The risks that are known of, known about,  
6 yes.

7 Q. All right. And -- and -- and al --

8 That's also despite the fact that medical  
9 care professionals rely on the company to provide  
10 rules for safe use of a device; correct?

11 MR. BLACKWELL: I object to the form of the  
12 question.

13 A. Yes.

14 And it's very likely that the hazard  
15 analysis that occurred subsequent to the development  
16 of this device recognized that the risk index was  
17 either too low or zero and removed that warning from  
18 the labeling.

19 MS. ZIMMERMAN: I'm going to move to strike  
20 as non-responsive.

21 Q. Are you aware of any testing that -- that  
22 showed that there was not airborne risk of  
23 contamination --

24 A. I'm not.

25 Q. -- conducted by this study?

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 315

1 A. I'm not.

2 Q. Or I'm sorry, conducted by the company.

3 A. No, I am not.

4 Q. Okay. So it's pure speculation on your  
5 part.

6 Turning to the 700 series Bair Hugger,  
7 was -- was there any changes on the warnings as  
8 between the 700 series and the 500 series Bair  
9 Huggers?

10 A. I believe there were some changes.

11 Q. And what were those changes?

12 A. I believe the recommendation not to hose  
13 patients with the -- with the end of the nozzle was  
14 added.

15 Q. And hose --

16 And hosing is a practice of essentially  
17 using the machine without the disposable blanket  
18 attached; correct?

19 A. That's right.

20 Q. All right. Were there any other changes?

21 A. I'm -- I'm --

22 I suspect there are. I don't -- I don't  
23 know which ones changed between the two models though.

24 Q. So as you sit here today, the only change  
25 that you are aware of between the 500 and 700 series

CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER

Page 316

1 with respect to the warnings has to do with the  
2 warning not to engage in hosing; correct?

3 A. That's correct.

4 Q. All right. And you'd agree that there's no  
5 warning on the 700 series, again, regarding the risk  
6 of airborne contamination; correct?

7 A. That's correct.

8 Q. And again, that's despite the fact that the  
9 risk of airborne contamination was in fact known to  
10 the company at that time; correct?

11 MR. BLACKWELL: I object to the form of the  
12 question.

13 A. It --

14 Well, it was included as a warning on the  
15 model 200, yes.

16 Q. Okay. I'm going to turn to topic number  
17 eight, which is data or research supporting the claim  
18 that the Bair Hugger blankets act as an additional  
19 filter or otherwise reduce the potential for  
20 contamination in the operating room. You're prepared  
21 to testify about that today as well; correct?

22 A. Yes.

23 Q. And I think you had some questions posed to  
24 you earlier today by my colleague, Mr. Assaad,  
25 regarding the Avidan study. Do you recall that?